



74892PMGB
Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Kenneth A. Parulski, et al

DIGITAL CAMERA PROVIDING
IMAGE PROCESSING FOR AN
ATTACHABLE PRINTER

Serial No. 09/800,158

Filed 06 March 2001

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Sir:

Group Art Unit: 2612

Examiner: Brian J. Jelinek

I hereby certify that this correspondence is being
deposited today with the United States Postal
Service as first class mail in an envelope addressed
to Commissioner For Patents, P.O. Box 1450,
Alexandria, VA 22313-1450.

Gina Marie Schmitt
Gina Marie Schmitt

December 27, 2005
Date

**DECLARATION OF ATTORNEY DILIGENCE IN THE UNITED
STATES TO OVERCOME CITED PATENT (37 C.F.R. 1.131)**

PURPOSE OF THE DECLARATION

This declaration is presented to establish attorney diligence between a date prior to January 30, 1997 (the effective date of the cited patent to Ogawa et al.) and April 4, 1997 (the filing date of a patent application that was to become the basis for constructive reduction to practice of the invention claimed in the present application).

The person making this declaration is the attorney who prepared the April 4, 1997 patent application.

FACTS AND DOCUMENTARY EVIDENCE

To establish the date of completion of the invention of this application, the following attached documents are submitted as evidence:

1. A Search Request and Memorandum for File prepared by Kodak attorney Milton S. Sales and dated **August 9, 1996**, requesting a State of the Art search, and showing a search date of **September 16, 1996**.

BEST AVAILABLE COPY

2. A follow-up Invention Disclosure form dated on **August 13, 1996** by inventor Jeffery A. Small, witnessed on **August 14, 1996**, showing conception of the invention set forth in at least claims 1 and 14 of the application.
3. A memo from Jeffery A. Small to attorney Milton Sales dated **August 14, 1996**, which accompanied the Invention Disclosure of document 2 and showing a receipt date by the Patent Department of **August 16, 1996**.
4. An Internal Memo dated **September 17, 1996** from attorney Milton Sales to inventor Jeffery A. Small forwarding the results of the search.
5. A memo from Jeffery A. Small to attorney Milton Sales dated **November 18, 1996**, including the inventor's analysis of the search results included in the Internal Memo of September 17, 1996.
6. A two-page set of drawings dated **March 17, 1997** by inventor Jeffrey A. Small intended to assist in the preparation of the parent application which was filed on **April 4, 1997**.

TIME OF PRESENTATION OF THE DECLARATION

This declaration is submitted before final rejection.

DECLARATION

I, Milton Sales, declare that:

1. I was employed as an examiner by the U.S. Patent Office from August 1964 until August 1966. I was employed as a registered patent agent by the law firm Dodge and Son or Washington DC from August 1966 until August 1967, and by the law firm Sugrue, Rothwell, Mion, Zinn and McPeak of Washington DC from August 1967 until August 1968. As of April 4, 1997, I had been employed continuously by the Eastman Kodak Company (Kodak) as a patent agent between August 19, 1968 and January 1969 (the mentioned period), and as a patent attorney from January 1969.

2. During the mentioned period, I was the Group Patent Counsel of Kodak's Imaging Apparatus Group. My duties included supervising, mentoring, and coaching twelve (12) patent attorneys, twelve (12) patent legal assistants, one (1) drafter, and one (1) searcher. I was one of four members of the Patent Legal Staff Management team, which set policy and practices for the entire patent legal staff. I was one of nine (9) members of the Kodak's General Counsel's

management team, which set policy and practices for the entire Legal Department. I was a member of Kodak's U.S.P.T.O. Practices Committee, which was responsible for monitoring the operation of the U.S.P.T.O., and conforming Kodak practices thereto. In addition to these management duties, I was responsible a substantial docket of patent matters. These patent matters included U.S. and foreign application drafting and prosecution, product infringement opinions, litigation support, and policing Kodak's patent portfolio against potential infringers.

3. During the mentioned period, the stated goal of Kodak's Patent Legal Staff was to file a new patent application within four months of receipt of a complete disclosure of at least one implementation (embodiment) of the invention. Because of heavy workload, the goal was often exceeded by myself and other Kodak patent attorneys whom I supervised.

4. On or about August 9, 1996, I personally interviewed Jeffrey Small, then a Kodak engineer and an inventor of the present application. Jeffrey Small described in general terms an idea he was developing, and I agreed to have an infringement clearance and state-of-the-art search conducted to assist his efforts. Document 1 is a copy of a search request prepared by me on August 9, 1996.

5. On or shortly after August 16, 1996, I received a two-page Kodak Invention Disclosure. Accompanying the Invention Disclosure was a memo from Jeffrey Small indicating that Lab Head William (Bill) Fowlkes "has put some urgency on this IR (Invention Request)." The Invention Disclosure and accompanying memo are attached as Documents 2 and 3, respectively.

6. On September 17, 1996, the Kodak Patent Department received the results of the search request mentioned above and marked Document 1. I forwarded the search results to Jeffrey Small for comment on September 17, 1996 along with a memo attached hereto as Document 4. In that memo of September 17, 1996, I requested that Jeffrey Small assist in the preparation of a patent application by supplying sketches of at least one implementation (embodiment) of the invention.

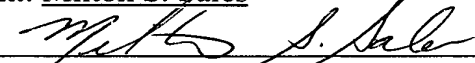
7. On or shortly after November 18, 1996, I received a memo from Jeffrey Small, attached hereto as document 5, with his analysis of the prior art. In the normal course of business, I would have personally reviewed the analysis and made a determination of patentability as soon as my heavy workload permitted.

8. On or shortly after March 17, 1997, I received a set of sketches (attached as Document 6) of a preferred embodiment of the present invention, prepared by Jeffrey Small at my request as part of the patent application preparation process), whereupon, as my heavy work load permitted, I commenced the preparation of the parent application which was filed on April 4, 1997.

As the person signing below, I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United states Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE

Full name of Declarant: Milton S. Sales

Declarant signature: 

Date: Dec. 21, 2005 Country of Citizenship: United States

Residence: Webster, New York, USA

Post Office Address: 703 Mariner Circle, Webster, NY 14580

EASTMAN KODAK COMPANY
Search Request and Memorandum for File

Mr SS (Blaum)

ALL INFORMATION ON THIS FORM MUST BE PRINTED OR TYPED

Requester: Prepare Form in Duplicate; Forward Original and 1 Copy to:
Patent Information Section, Joann Scotty, 12th Fl, B-83, KP-02201 (X-22486)

<u>Milton S. Sales</u>	<u>Patent Legal Staff / 02201</u>	<u>002329 - 2</u>
<u>Requester Name</u>	<u>Requester Department & Mail Code</u>	<u>Search Number (PLS USE ONLY)</u>
<u>FMSF</u>	<u>ltsf00</u>	<u>(716) 253-0127</u>
<u>Docket or Supervisor Code</u>	<u>Requester PROPS LD.</u>	<u>Requester Complete Telephone Number</u>

☐ Update from previous search: # _____
(Previous Search No. or Docket No.)

normal 9/13
Date Needed
Normal Turnaround time is one month from
date of receipt of confirmation

TITLE: Digital Camera and Printer System

CENTRAL FEATURE: A digital still camera can be connected directly to a small personal printer without a computer interface because a micro-computer within the camera body is used to convert the captured image into color separation bit maps to be stored in the camera and down loaded directly to the printer.

Client is: Bill Fowlkes

KAD PATENT DEPT.

SEP 17 1996

EASTMAN KODAK CO

Type of Search:

☐ Novelty/Patentability
☒ Infringement
☒ Infringement Request
discussed w/ Attorney
☐ Validity
☒ State of Art

☐ Assignee/Inventor
☐ Complex
☐ Simple
☐ Collection
☐ Literature

Recommendations:

☐ On-Line Search Only
☐ Derwent Search
☐ U.S.
☐ Foreign
☐ If outside searcher used: _____

**ART KNOWN TO REQUESTER: 4,714,962; 4,751,583; 4,827,347 (EK) - provide copies with search report

L L ↓ attached

For In-house Searchers Only	
Inside Manual Search Conducted:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Classes searched:	
Databases searched:	
THIS MUST BE COMPLETED BEFORE RETURNING TO JOANN SCOTTY	

Contact Attorney: <u>Milton S. Sales</u>	Searched By: <u>Blaum</u>	Received On: <u>8/13</u>
Date: August 9, 1996	Date: <u>9-16-96</u>	
Attorney Phone No. 253-0127	COST \$ <u>843</u>	

Revised 9-Aug-96

Cos. Code: _____

EASTMAN KODAK COMPANY
CONFIDENTIAL INFORMATION
CONTROLLED DISTRIBUTION

Request No. _____

KODAK

Access. No. _____

INVENTION DISCLOSUREDocket No. 74892Page 1 of 2To: Patent Department, Attention: Milt Sales

(Pat. Dept. Attorney)

(Location)

Subject: Patentability

Evaluation for (Title): Smart Electronic Camera with a Slave PrinterEarliest Date of Invention: March 25 1996

Documentation: Notebook No./Page No.: _____

Date: _____ Author(s): _____

Other (e.g. Technical Reports, Memos, etc.): Screen Dump of my PCDate: _____ Author(s): Jeffrey Small

Commercialization/Outside Disclosure:

Currently Planned?

☒ YES ☐ NO

Product, Process,

Project, or Program: A6 PRINTERDate: Mid '97(Check here ☒ if Clearance Study is also requested)

Disclosure: On attached typewritten pages, provide all the information requested for the sections listed below. Identify each section with the heading indicated. Provide all the information requested to the best of your knowledge as this will save time for you and the patent attorney. Each page should be signed and dated by each contributor and two disclosure reviewers. Consult your Patent Attorney, if necessary, for further details on required information.

Sections

I. Background: Briefly discuss the need for the invention. Indicate the current state of the art (what is being done/used now by Kodak and others). Identify pertinent literature (patents or other published articles) and other public disclosures of which you are aware. Identify the problems of the closest prior technology which the invention solves.

II. Summary of Invention: Summarize the invention in general terms. State the novel feature(s) of the invention which solve(s) the problem(s) identified in the background section. Set forth the basic idea of the invention.

III. Detailed Description: Describe the specifics of the invention. Use drawings, flow charts, block diagrams, schematics, tables, formulas, test results, etc. (free from Kodak codes and jargon) as appropriate. Include a broad description, preferred embodiments, and specific examples. You must disclose the best mode contemplated for practicing the invention. Preferably, describe the invention at a level where one with a technical background but no detailed knowledge of the particular field could understand the description. Enough information should be provided to enable a person skilled in the technology to practice the invention without undue experimentation.

IV. Advantages: State the advantage(s) over the prior technology which the invention provides. These advantages should be supported by the description in the previous section of the results achieved by the invention.

Contributor(s)/Inventor(s):

FULL Name (Print or type)	Organization	Phone	Signature	Date
1. <u>Jeffrey Small</u>	<u>D-749</u>	<u>89404</u>	<u>Jeffrey A. Small</u>	<u>8-13-96</u>
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____

Read and Understood By:

(Two disclosure reviewers)

(1)

(Signature)

(Date)

(2)

(Signature)

(Date)

Approved By:

(Name of Lab Head, Technical Director, etc.)

(Title/Organization)

(Signature)

(Date)

Category: TECHNICAL DIRECTOR, ANSWER THE FOLLOWING QUESTIONS:

I. Is there a reasonable prospect of commercial use of the invention by Kodak?

☒ Yes ☐ No

II. If not, is there a reasonable prospect of commercial use by others to compete with Kodak?

☒ Yes ☐ No(Initials W.E.F., Date 8/14/96)

Apr-94

DOCUMENT 2-1

Smart Electronic Camera with a Slave Printer

Background:

In designing systems which contain both a digital camera and a digital printer, the images captured by the camera must be processed before they can be printed. This processing is typically done in either the printer, or else in a computer which is connected to both the camera and the printer. In order to process an image that has been captured by an electronic camera for printing, significant computing and memory resources are required. Memory resources must already exist in the camera in order for the camera to do a frame grab from its electronic image sensor. Computing resources must also already exist in the camera in order to perform color filter array interpolation, compression, and file management. Further, many cameras have a display in order to review images that have been captured, or for use as an electronic viewfinder. Currently, printers for use with electronic cameras either require an external computer, use a video interface and hence need video processing circuitry, or contain computing and memory resources which also exist in the cameras.

Description:

Rather than duplicate computing and/or memory resources that are in the camera by also putting them into a printer, a system consisting of an electronic camera and a printer may be built; wherein the memory and computing resources exist only in the camera. Because such resources are already required by the camera in order to perform the camera functions, the cost of the camera is not increased. Because the resources are then no longer required in the printer, the overall system cost is reduced.

Firmware may be written for the camera which could support many different printers. This would require parameters to be uploaded from the printer to the camera to provide information such as print size (in linear dimensions and in pixels), colorimetry, sensitometry, and compensation information that is needed to reduce printer process artifacts such as thermal smear.

Advantages:

- No external computer is required to print from the camera.
- System cost is reduced because memory and computing resources are not duplicated.
- System power requirements are reduced.

Inventor:

*Jeffrey A. Small*Date: *Aug. 13, 1996*

1

Read & Understood by:

Michael L. C. G.

Date:

5/13/96

Read & Understood by:

John J. H. H.

Date:

8/14/96

KAD PATENT DEPT.

AUG 16 1996

EASTMAN KODAK CO

August 14, 1996

To: Milt Sales
From: Jeffrey Small x89404
Subject: Attached IR

Bill Fowlkes has put some urgency on this IR. I will be on vacation until Wed., 8/21, so I wanted to get this to you ASAP. I will do the searching when I return.

Thanks,

A handwritten signature in black ink, appearing to read 'Jeff', is positioned below the 'Thanks,' text.

DOCUMENT 3



INTERNAL MEMO

TO: Jeff Small
FROM: Milt Sales

FLOOR	BLDG	PLANT
1	65	RL
DATE		
9-17-96		
BINDER #	SHEET #	

SUBJECT:

Digital Camera & Printer System

Because of the urgency mentioned in your note of 8/14/96, I went ahead & ordered a novelty search on this disclosure. The search results are enclosed, including searcher's report, cited patents, and your original disclosure. I have not retained a copy of any of this material.

Pls review the disclosures. If you believe that a worthwhile patent can still be obtained, pls schedule a Patentability Mtg. with me (my secretary's # is 30056). At the mtg, be prepared to discuss the most pertinent prior art, and how your idea differs. Have a copy of those patents that you can leave w/ me.

If an appl'n is to be written, it will probably be done by outside counsel. Therefore, having a fairly detailed writing (plus disc on Microsoft Word 6.0 or lower) would be helpful.

Sketches of one or more implimentations of your idea are essential.

Milt

DOCUMENT 4

18-Nov-96


TO: Milt Sales
From: Jeffrey Small
Subject: Search results for my IR: "Smart Electronic Camera with a Slave Printer"

The following documents the search results contain what may be pertinent information relative to my invention report. My idea is to perform "printer process-specific" precompensation in the camera rather than in the printer. My idea's primary advantage is that the printer may be simplified because resources that are adequate to do the printer process-specific processing already exist in many cameras. By doing the processing in the camera, such resources need not be provided in the printer.

Here are specific documents of interest from the search:

- 5138459: This describes processing images in the camera using different, user-selectable compression algorithms.
- 4937676: This describes "signal control and processing means disposed respectively within said camera and printer housings," but makes no mention of how these means are partitioned between the camera and printer. It also requires that memory be moved from the camera to the printer.
- 5563655: (Kodak patent) This describes saving various image processing algorithms in the same memory that the processed images will be stored in. No mention is made of a printer.
- 4827347: (Kodak patent) Claim 3 of this describes a camera with an electronic display [for previewing images] that "transmits" images to a printer. No mention is made of where any processing of these images is to be done.
- 4161749: Claim 1 has the printer taking "color signals" from the "imaging apparatus", where these colors are "different color components of the optical image" (not of the print image as in my idea). Claim 11 requires the processing means to convert from a "primary color space" to a "secondary color space" to be in the printer (rather than in the camera, as in my idea).
- 4942477: An "image pickup means" provides a "serial signal directly to a printing means", but this signal requires embedded line feeds (my idea does not).
- 4903132: (Re: 34654) An electronic camera includes means to convert color video output from the camera's memory into a printer format. I am unsure how this impacts my invention.

We can discuss my invention and the above patents when we meet.

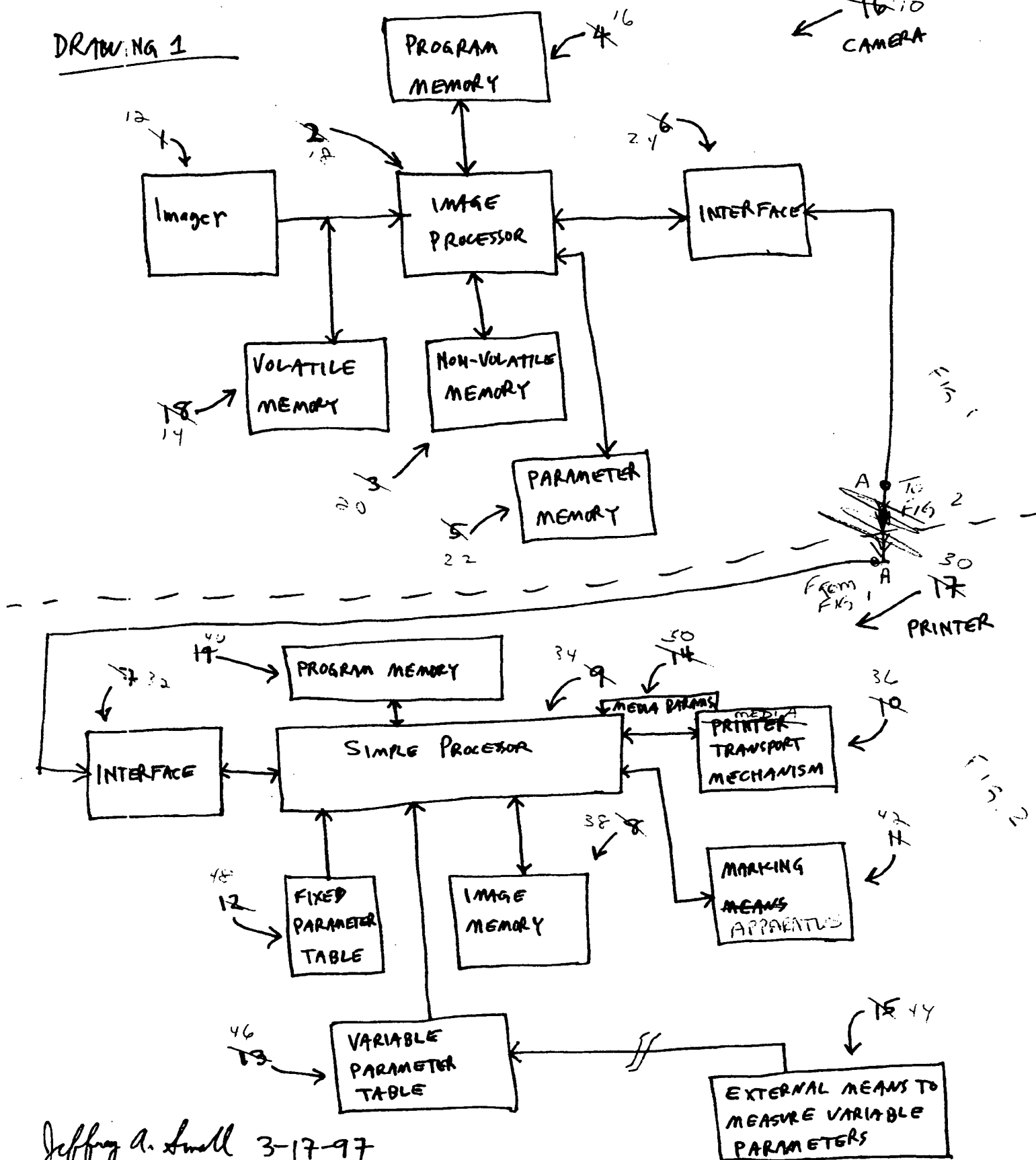


Jeff Small
x89404

PRINTER PARAMETER COMPENSATION BY A HOST CAMERA

3-17-97

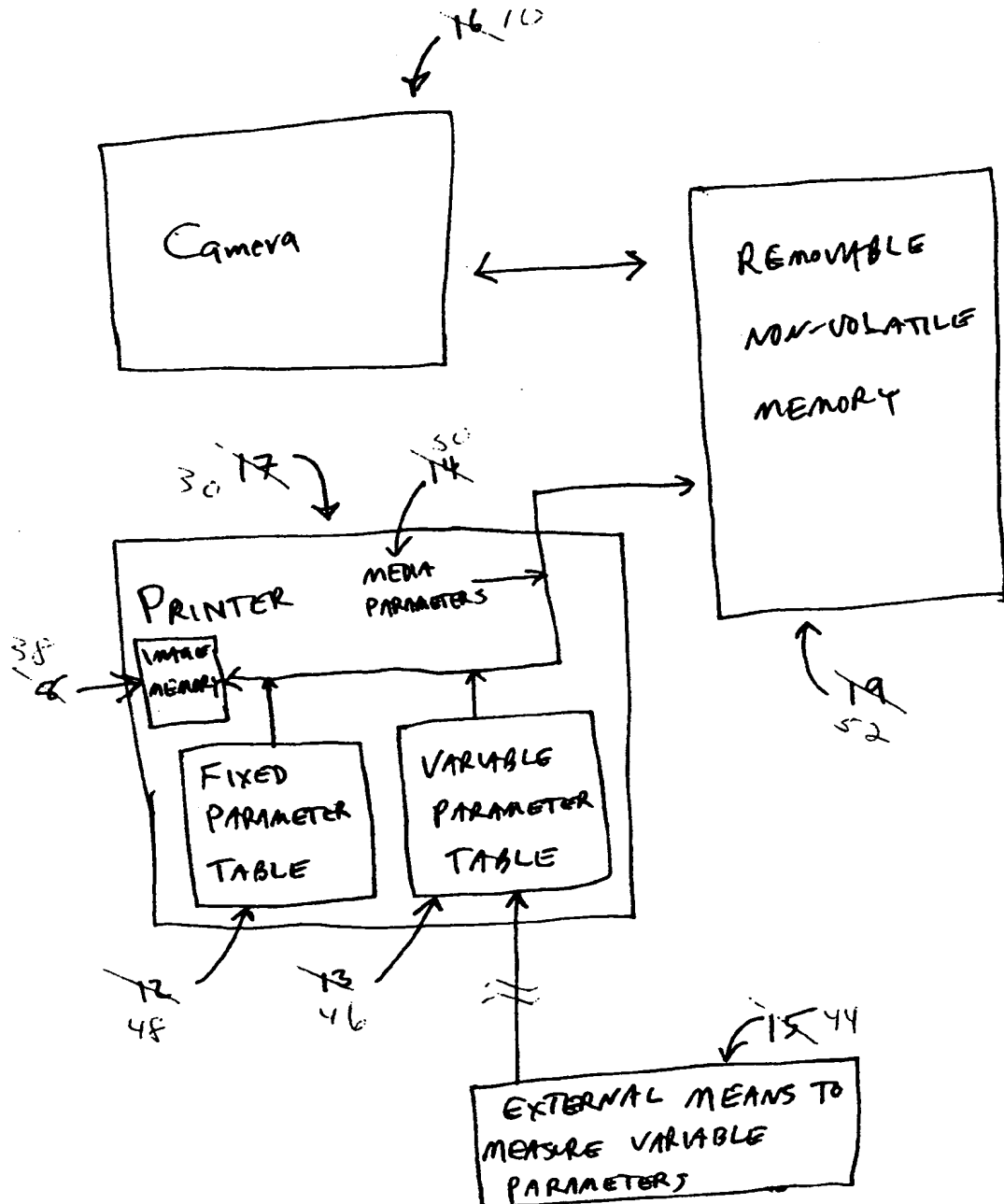
DRAWING 1



Jeffrey A. Small 3-17-97

PRINTER PARAMETER CONFIGURATION BY A HOST CAMERA

DRAWING 2



**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

☒ **BLACK BORDERS**

☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**

☐ **FADED TEXT OR DRAWING**

☒ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**

☐ **SKEWED/SLANTED IMAGES**

☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**

☐ **GRAY SCALE DOCUMENTS**

☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**

☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**

☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.